

CHAPTER 4 • ACCIDENT POTENTIAL ZONES



With the transition of Marine Corps aviation units to Miramar, the F/A-18 and KC-130 cargo aircraft continue to justify the extended safety impact areas to the coastline for the Seawolf Departure Corridor.



The safety impact areas for fixed and rotary-wing aircraft at MCAS Miramar have been prepared in accordance with existing DoN policies (OPNAVINST 11010.36B, December 2002). With the migration of Marine Corps aviation units to Miramar, the F/A-18 and KC-130 cargo aircraft continue to justify the extended safety impact areas to the coastline for the Fixed-Wing Seawolf Departure Corridor. The extended geometry to the coastline is unique for Miramar within the Department of the Navy, but is consistent with historical practices. No significant changes have been identified, and minor changes are consistent with historical practices.

According to OPNAVINST 11010.36B, flight tracks with less than 5,000 annual operations typically do not warrant APZs. The same instruction indicates that APZs associated with rotary-wing aircraft are very limited in size. All of the APZs associated with rotary-wing aircraft are fully contained within the station boundaries.

4.1 PROPOSED ACCIDENT POTENTIAL ZONES

In recent years, the Seawolf Corridor was modified to accommodate the safe co-location of both fixed and rotary-wing aircraft at Miramar. This functional airspace has been sectorized to meet the timely and mission essential training and readiness requirements and provides the required horizontal and vertical separation between rotary and fixed-wing aircraft to ensure safety of flight in this area. The APZs associated with the Marine Corps aircraft and operational tempo are shown on Figure 4-1. This figure also shows the locations of accidents since the 1970s within fifteen miles of the base. These accidents support both the standard establishment of APZs according to OPNAVINST 11010.36B, and the extension of APZs following adjustment criteria from this same instruction.

4.2 MODIFICATIONS TO APZs

Figure 4-2 compares NAS Miramar with MCAS Miramar Accident Potential Zones. Minor changes have occurred, with a regression to the south and slight refinements to the north within the Seawolf Corridor and Julian Corridor areas. No significant changes in land use have been identified within the safety impact areas for the projected MCAS Miramar APZs. Table 4-1 contrasts the land uses found within the adopted NAS Miramar AICUZ to the MCAS Miramar APZs. The total number of acres within APZs will be reduced from 10,155 acres to 10,122 acres which is statistically insignificant. This 33-acre drop represents less than one third of one percent of the total acres. It is recommended that new development established within the APZs be limited to reduce densification in these areas.

Minor changes in APZs have occurred, with an adjustment to the south and slight movement to the north within the Seawolf Corridor and Julian Corridor areas.

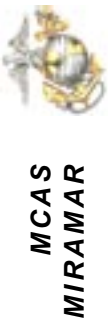
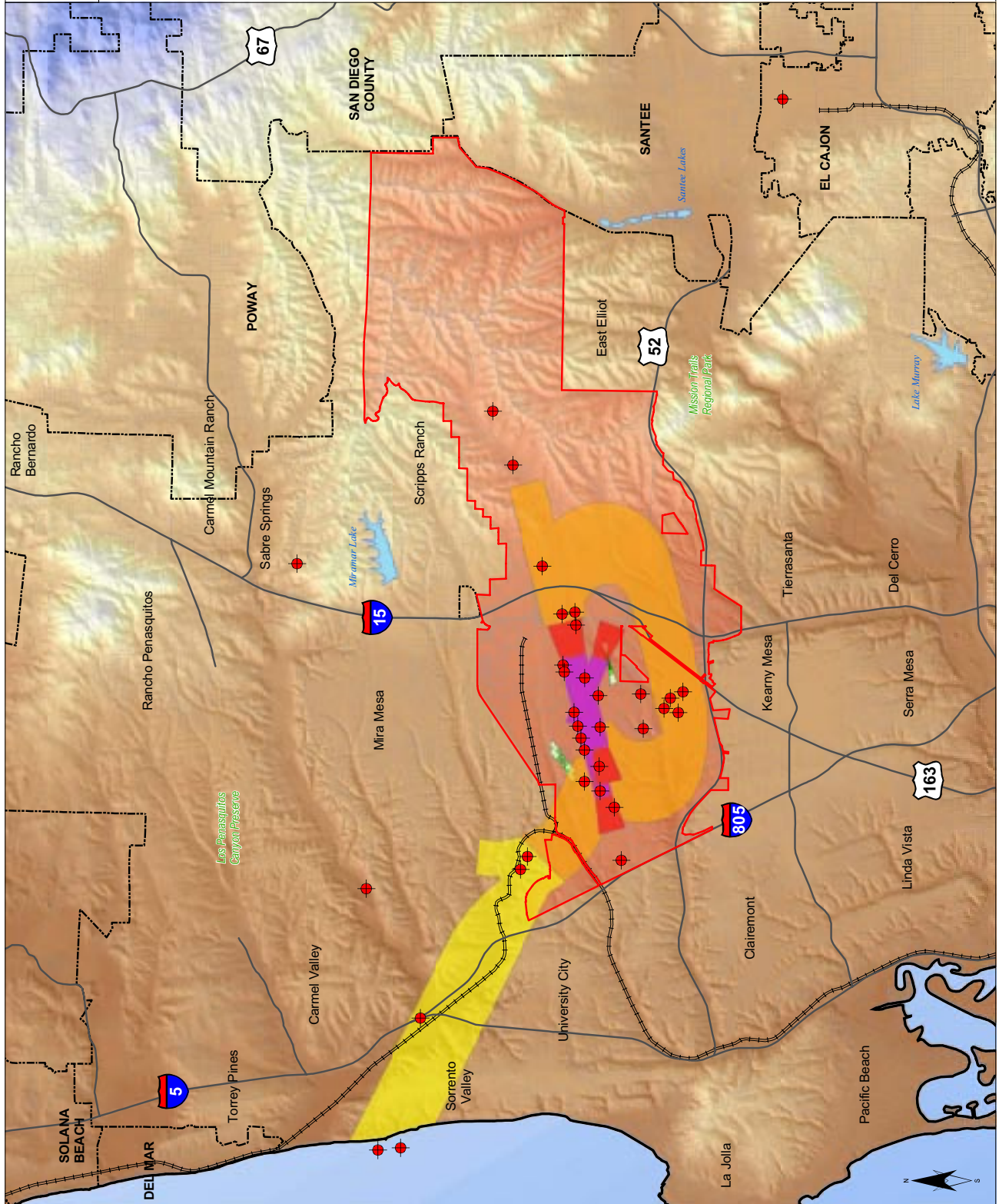


Figure 4-1
MCAS Miramar APZs and Aircraft
Mishap History

- MCAS Boundary
- Accident Potential Zone II
- Accident Potential Zone I
- Clear Zone
- Primary Surface
- Helipad APZ I
- Clear Zone
- Primary Surface
- Crash Sites

Note: This map was generated by developing APZs based on OPNAVINST 11010.36B. They were based on proposed flight tracks obtained from the 1995 Wyle Noise Study. In several cases, the APZs were extended based on historic accident data, airspace constraints and operational conditions from 1972-2004. APZs were created based on the following flight tracks which have over 5,000 annual operations: 4RS1, 4RS2, 4RJ2, LF1, LT2 and E2OH.



4.3 APZ GUIDELINES/CONSIDERATIONS

DoN policies and guidelines have been modified to include density maximums based on Floor Area Ratios (**FAR**) within safety impact areas. The recommended FARs are identified within the subsequent Land Use Compatibility Chapter of the Miramar AICUZ. The revised DoN policy and guidelines are provided to local jurisdictions and recommended for incorporation within the general and community plans of adjacent communities. The evaluation criteria prescribed by these guidelines include, but are not limited to, the following:

- Local accident history;
- Type of aircraft operations;
- Airspace limitations;
- Flight Tracks;
- Closed Loop Patterns; and
- Existing/proposed development.

Table 4-1: Major Changes in Adopted NAS Miramar Baseline APZs and Proposed MCAS Miramar APZs

Accident Potential Zones	NAS Miramar Baseline Conditions		MCAS Miramar Projected Conditions		ACRES CHANGED	
	On-base Acres	Off-base Acres	On-base Acres	Off-base Acres	On-base Acres	Off-base Acres
Primary Surface	560	0.0	560	0.0	0	0
Clear Zone	581	0.7	581	0.7	0	0
APZ 1	5,679	1,154.7	5,246	194.4	-433	-960
APZ 2	0	2,179.7	133	3,406.2	133	1,227
SUB-TOTALS	6,820	3,335	6,520	3,601	-300	266
GRAND TOTALS		10,155		10,122		-33
						-0.33%



Figure 4-2
Comparison of NAS Miramar and
MCAS Miramar Accident Potential
Zones

Increase
Decrease

- MCAS Miramar Accident Potential Zone
- Accident Potential Zone II
 - Accident Potential Zone I
 - Clear Zone
 - Primary Surface
 - Helipad APZ I
 - Helipad Clear Zone
 - Helipad Primary Surface

Note: This map was generated by developing APZs based on OPNAVINST 11010.368. They were based on proposed flight tracks obtained from the 2003 Wyle Noise Study. In several cases, the APZs were extended based on historic accidents, data, airspace constraints and operational conditions. APZs were created based on the following flight tracks which have over 5,000 annual operations: 4RS1, 4RS2, 4RS3, 4RJ2, LF1, LT2 and E2OH.

*Patterns shown for increase of accident potential zones apply only to fixed wing APZs. All rotary wing accident potential zones are contained within the station boundaries.

